Enabling variations in encoding the type of the described entity

Initial decision (2018)

the initial user suggestion in #44 asked to extend the list of values enabled within <entitytype> to allow for additional options if an entity - within a local context - did not necessarily fit into one of the current categories of “corporateBody”, “person”, “family”. Preference has been given to keep with the closed list as is, but the idea has been introduced to add a new element <localentitytype> to allow for variations.

Based on this, the EAC team within TS-EAS decided the following back in 2018:

- Have a new element <entitytypedeclaration> as a wrapper element within <identity>; mandatory, not repeatable;
- Have the existing element <entitytype> as a sub-element of <entitytypedeclaration> with three predefined possible terms (“corporateBody”, “person”, “family”) as content for the element itself; mandatory, not repeatable;
- Have a new element <localentitytype> as a sub-element of <entitytypedeclaration> with any textual content; optional, repeatable;
- Both sub-elements would use the optional @localType to include references, e.g. to an ontology.

The encoding would look as follows based on this decision:

```
<entitytypedeclaration>
   <entitytype
   localtype="http://d-nb.info/standards/elementset/gnd#CorporateBody">
   corporateBody</entitytype>
   <localentitytype
   localtype="http://d-nb.info/standards/elementset/gnd#Company">
```

```
   Company</localentitytype>
</entitytypedeclaration>
```

Questions during and as result of the Berlin meeting

Content model for <entitytype>

Based on the decision taken for <agenttype>, <eventtype>, <maintenancestatus>, and <publicationstatus> to move their element content into a new attribute @value (borrowed from EAD3, see e.g. #5 for <maintenancestatus>) in 2019, the question came up as to whether <entitytype> could follow the same approach, i.e.:

```
<entitytype value="corporateBody"/>
```

instead of

```
<entitytype>corporateBody</entitytype>
```

By this, <entitytype> would provide the predefined, standardised values (in English), while the suggested new element <localentitytype> would have additional value by offering a possibility to encode related, alternative or more precise terms that are used locally.

> *Sidenote*
>
> Initially, the idea has been to allow content within <agenttype>, <eventtype>, <maintenancestatus>, and <publicationstatus>, which could have applied in the way to <entitytype>. This could have allowed these elements to be used with @(xml:)lang to provide translations of the predefined terms as content of the element, e.g.
>
> ```
> <entitytype value="corporateBody" lang="ger">Körperschaft</entitytype>
> <entitytype value="corporateBody" lang="fre">Collectivité</entitytype>
> ```
>
> Following further conversations in Berlin and seeing that <agenttype>, <eventtype>, <maintenancestatus>, and <publicationstatus> all are used within <control>, the decision has been revised, so that these elements:
>
> - Cannot have any content;
> - Will not be repeatable;
> - Will not be used with any language attribution (@lang, @script, @transliteration).
>
> If <entitytype> should follow the same approach, this would apply accordingly.

Follow-up questions

Stemming from the initial question regarding the content model of <entitytype>, a more general conversation evolved during the Berlin meeting which resulted in a variety of alternative encoding approaches. The underlying aspects of this conversation with regard to the types of entities referred to:

- Keep one element - or attribute - using standardised values for the type of entity being described for reasons of interoperability, i.e.:
  - Do NOT open up the list of predefined values, whether used as element's content or value of an attribute;
- Enable users to include their own types of entities, e.g.:
  - As translations of the standardised terms;

- As alternatives or more specific terms;
- With an option to point to an ontology for these terms;
- With an option to define the relationship of the local term to the standardised terms.

General agreement

There was general agreement that - if kept - <entitytype> should follow the same content model as introduced now for <agenttype>, <eventtype>, <maintenancestatus>, and <publicationstatus>. There also was agreement to not extend the current list of predefined values.

Options for encoding the entity type

Option 1	**Option 2**	**Option 3**
Keep <entitytype> as mandatory and not repeatable (1)	Have <entitytype> as mandatory and repeatable (1...n)	Change the <entitytype> to being a required attribute of <identity> (1)
Only with the @value attribute	With the @value attribute	*not applicable*
Without having content itself	Plus having content itself	*not applicable*
	And having the @(xml:)lang attribute to specify which language the content is in	*not applicable*
Use <localentitytype> to provide translations as well as other alternative types	Use <localentitytype> to provide other alternative types only, while translations are dealt with in <entityType> itself	Use <localentitytype> to provide translations as well as other alternative types

`<identity>`
`[...]`
`<entitytype value="corporateBody"/>`
 	
`<localentitytype lang="ger">Körperschaft </localentitytype>`
 	
`<localentitytype lang="fre">Collectivité </localentitytype>`
 	
`<localentitytype lang="ger">Verein </localentitytype>`
`[...]`
`</identity>`
	`<identity>`
	`[...]`
	`<entitytype value="corporateBody" lang="eng"/>`
	`<entitytype value="corporateBody" lang="ger">Körperschaft </entitytype>`
	`<entitytype value="corporateBody" lang="fre">Collectivité </entitytype>`
	`<localentitytype lang="ger">Verein </localentitytype>`
	`[...]`
	`</identity>`
		`<identity`
		
		`entitytype="corporateBody">`
		
		`<localentitytype lang="ger">Körperschaft </localentitytype>`
		
		`<localentitytype lang="fre">Collectivité </localentitytype>`
		
		`<localentitytype lang="ger">Verein </localentitytype>`
		`[...]`
		`</identity>`

	Would require according rules set via schematron: ● To avoid a repeated <entitytype> to have a different term in @value than the first one; ● To ensure all <entitytype>-s have a different value for @(xml:)lang	

Recommendation

Follow option 1, i.e.:

- Keep <entitytype> as an element;
- Have <entitytype> as mandatory, not repeatable sub-element of <identity>;
- Do NOT allow content within <entitytype>;
- Use the - required - attribute @value to specify whether the type of entity is “corporatebody”, “person”, “family”
- Use the general - optional - attributes @id, @audience, @encodinganalog
- Use the - optional - attributes @valueURI, @vocabularysource, @vocabularysourceURI for pointing to an ontology, vocabulary or other means of defining/identifying the terms used

Options for wrapper element(s)

The question might be if a wrapper element <entitytypedeclaration> is the most logical choice:

- So far, <*declaration> elements are only used within the <control> section;
- It might be worth considering to have <localentitytype> - and possibly also <identityid> - follow the singular/plural approach applied to other elements in the description section as well.

Option 1	**Option 2**
Have one new wrapper element <entitytypedeclaration> as sub-element of <identity> Includes sub-elements <entitytype> and <localentitytype> If <entitytypedeclaration> includes <entitytype> (options 1 and 2), it needs to be mandatory; if the @entityType becomes an attribute of <identity>, <entitytypedeclaration> could be optional Have a second new wrapper element <identityids> as sub-element of <identity> Includes singular version of itself, i.e. <identityid> Could be optional and would, if used, require to use at least one singular version of itself	Have two new wrapper elements, <identityids> and <localentitytypes> as sub-elements of <identity> Include singular version of themselves, i.e. <identityid> and <localentitytype> <identityids> and <localentitytypes> could both be optional and would, if used, both require to use at least one singular version of themselves

`<identity>`
`<entitytypedeclaration>`
`<entitytype value="corporateBody"/>`
 	
`<localentitytype`
	`<identity>`
	
	`<entitytype value="corporatebody"/>`
	`<localentitytypes>`
	`<localentitytype`

lang="ger">Körperschaft </localentitytype> <localentitytype lang="fre">Collectivité </localentitytype> <localentitytype lang="ger">Verein </localentitytype> [...] </entitytypedeclaration> <identityids> <identityid localtype="drivingLicence">0815 </identityid> <identityid localtype="passport">ABCD </identityid> </identityids> </identity>	lang="ger">Körperschaft </localentitytype> <localentitytype lang="fre">Collectivité </localentitytype> <localentitytype lang="ger">Verein </localentitytype> [...] </localentitytypes> <identityids> <identityid localtype="drivingLicence">0815 </identityid> <identityid localtype="passport">ABCD </identityid> </identityids> </identity>

Recommendation

Follow option 2, i.e.:

- Introduce two new wrapper elements, <localentitytypes> and <identityids>, within <identity>;
- Have both of these elements as optional and not repeatable;
- Have both of these elements follow the same content model as other plural elements *-> to be decided in a more general conversation around plural elements*;
- Have both of these elements include one or more of the respective singular elements, i.e. <localentitytype> and <identityid> respectively;
- Have both of these elements with the general - optional - attributes @id, @audience, @encodinganalog;
- Have both of these element with the - optional - attributes for language attribution, i.e. @lang, @script, @transliteration *-> to be decided in a more general conversation around language attribution*;
- Have <localentitytypes> with the - optional - attributes @valueURI, @vocabularysource, @vocabularysourceURI for pointing to an ontology, vocabulary or other means of defining/identifying the terms used.

Recommendation on attributes for <localentitytype>

- Use the general - optional - attributes @id, @audience, @encodinganalog;
- Use the - optional - attributes for language attribution, i.e. @lang, @script, @transliteration;
- Use the - optional - attributes @valueURI, @vocabularysource, @vocabularysourceURI for pointing to an ontology, vocabulary or other means of defining/identifying the terms used.

Recommendation on attributes for <identityid>

- Use the general - optional - attributes @id, @audience, @encodinganalog;

- Use the - optional - attribute @localtype *-> pending the more general decision with regard to @localtype*;
- Use the - optional - attributes for language attribution, i.e. @lang, @script, @transliteration *-> to be decided in a more general conversation around language attribution*.

Sidenote with regard to the conversation on 9 March

The sample encoding presented during the meeting included <identityid> within <entitytypedeclaration>. This, however, was not part of the initial decision as presented in #44, which is why it has been treated differently within the current paper.